IN THE CLAIMS

1. - 21. (Cancelled)

22.   (Currently Amended)   ~~The~~ A method ~~of claim 21~~ for dynamic grouping of clients to support scalable group communications in interactive applications, comprising:

identifying an application having an application space;

identifying a plurality of clients of said application such that each of said plurality of clients has a communication interest with said application;

identifying a communication network that handles communications between said plurality of clients and said application and that includes network resources with network-level characteristics;

mapping said network resources based on said network-level characteristics to produce network map information, wherein the network-level characteristics comprise at least one of: ~~a network position parameter,~~ a network fanout, a network delay, or a network forwarding capacity;

partitioning said application space into a plurality of communication interest partitions, each partition of which represents a communication interest of at least one of said plurality of clients;

indexing the plurality of communication interest partitions and said network map information to form a multi-type attribute index structure into one or more client groupings;

grouping said plurality of clients based on their communication interest and on said multi-type attribute index structure; and

forming a hierarchical structure that includes a parent node and at least one control node for communicating data to said plurality of clients such that said hierarchical structure is based on said multi-type attribute index structure and on the client groupings, wherein said parent node establishes a communication overlay that directs communications between said plurality of clients and said application, and said parent node produces a membership list comprising one or more of said plurality of clients having an interest in at least one of the plurality of communication interest

partitions, wherein said membership list maps into one or more communication groups to enable distributed communication between said plurality of clients and said application.